GenCore version 5.1.3

OM nucleic - nucleic search, using sw model

Run on: December 6, 2002, 21:11:51 ; Search time 45 Seconds
(without alignments)
10392.935 Million cell updates/sec

Title: US-10-025-514-7
Perfect score: 1525
Sequence: 1 tctagaccatgtctggaaag.....ccaactcagaagtagtcgac 1525

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_NA:*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	630.4	41.3	1308	3	US-09-023-173-10	Sequence 10, Appl
2	630.4	41.3	1308	3	US-09-023-339-6	Sequence 6, Appli
3	629.4	41.3	1185	3	US-09-023-339-3	Sequence 3, Appli
4	629.4	41.3	1260	3	US-09-023-173-5	Sequence 5, Appli
5	433.2	28.4	5932	4	US-09-299-141-4	Sequence 4, Appli
6	433.2	28.4	6142	4	US-09-299-141-8	Sequence 8, Appli
7	433.2	28.4	6565	4	US-09-299-141-1	Sequence 1, Appli
8	433.2	28.4	6714	4	US-09-299-141-6	Sequence 6, Appli
9	433.2	28.4	6924	4	US-09-299-141-9	Sequence 9, Appli
10	433.2	28.4	6924	4	US-09-299-141-10	Sequence 10, Appl
11	433.2	28.4	6924	4	US-09-299-141-11	Sequence 11, Appl
12	433.2	28.4	6981	4	US-09-299-141-7	Sequence 7, Appli
13	433.2	28.4	7054	4	US-09-299-141-3	Sequence 3, Appli
14	433.2	28.4	7405	4	US-09-299-141-2	Sequence 2, Appli
15	430.4	28.2	1185	3	US-09-023-339-2	Sequence 2, Appli
16	408.8	26.8	1356	1	US-08-002-202-16	Sequence 16, Appl
17	408.8	26.8	1356	3	US-08-481-534-16	Sequence 16, Appl
18	407.2	26.7	1356	1	US-08-002-202-12	Sequence 12, Appl
19	407.2	26.7	1356	3	US-08-481-534-12	Sequence 12, Appl
20	404	26.5	1356	1	US-08-002-202-18	Sequence 18, Appl
21	404	26.5	1356	3	US-08-481-534-18	Sequence 18, Appl
22	313.2	20.5	1339	1	US-07-859-480-1	Sequence 1, Appli
23	228.6	15.0	7492	4	US-09-299-141-5	Sequence 5, Appli
24	219.2	14.4	1423	1	US-07-829-954-1	Sequence 1, Appli
25	219.2	14.4	1423	1	US-07-994-423-1	Sequence 1, Appli
26	219.2	14.4	1423	1	US-08-421-891-1	Sequence 1, Appli
27	210.6	13.8	10627	1	US-08-060-925A-12	Sequence 12, Appl
28	124.6	8.2	2466	4	US-09-271-608-7	Sequence 7, Appli
29	124.6	8.2	2466	4	US-09-695-950-7	Sequence 7, Appli
30	124.6	8.2	2466	4	US-09-696-147-7	Sequence 7, Appli
31	124.6	8.2	2466	4	US-09-696-364-7	Sequence 7, Appli
32	123.2	8.1	194	2	US-07-963-538B-5	Sequence 5, Appli
33	123	8.1	180	3	US-08-483-503A-2	Sequence 2, Appli
34	106.4	7.0	1508	3	US-08-660-347-1	Sequence 1, Appli
35	81.6	5.4	1179	4	US-08-745-995A-22	Sequence 22, Appl
c 36	81.6	5.4	1179	4	US-08-745-995A-23	Sequence 23, Appl
37	81.6	5.4	1191	4	US-08-745-995A-4	Sequence 4, Appli
c 38	81.6	5.4	1191	4	US-08-745-995A-5	Sequence 5, Appli
39	81.6	5.4	1191	4	US-08-745-995A-34	Sequence 34, Appl
c 40	81.6	5.4	1191	4	US-08-745-995A-35	Sequence 35, Appl
41	81.6	5.4	1197	4	US-08-745-995A-10	Sequence 10, Appl
c 42	81.6	5.4	1197	4	US-08-745-995A-11	Sequence 11, Appl
43	81.6	5.4	1260	4	US-08-745-995A-16	Sequence 16, Appl
c 44	81.6	5.4	1260	4	US-08-745-995A-17	Sequence 17, Appl
45	81.6	5.4	1358	4	US-08-745-995A-7	Sequence 7, Appli

ALIGNMENTS

RESULT 1
US-09-023-173-10
; Sequence 10, Application US/09023173
; Patent No. 6066781
; GENERAL INFORMATION:
; APPLICANT: Sutliff, Thomas D.
; APPLICANT: Rodriguez, Raymond L.
; TITLE OF INVENTION: Production of Mature Proteins
; TITLE OF INVENTION: in Plants
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dehlinger & Associates
; STREET: 350 Cambridge Ave., Suite 250
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/023,173
; FILING DATE: 13-FEB-1998
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/038,168
; FILING DATE: 13-FEB-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Petithory, Joanne R
; REGISTRATION NUMBER: P42995
; REFERENCE/DOCKET NUMBER: 0665-0007.30
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-324-0880
; TELEFAX: 650-324-0960
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1308 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-09-023-173-10

Query Match 41.3%; Score 630.4; DB 3; Length 1308;
Best Local Similarity 70.8%; Pred. No. 1.3e-153;
Matches 838; Conservative 0; Mismatches 346; Indels 0; Gaps 0;

Qy 335 GGAAGACCCTCAAGGCGACGCCGCTCAAAAAACCGACACCAGTCATCACGACCAAGACCA 394

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RESULT 2
US-09-023-339-6
; Sequence 6, Application US/09023339
; Patent No. 6127145
; GENERAL INFORMATION:
; APPLICANT: Sutliff, Thomas D.
; APPLICANT: Rodriguez, Raymond L.
; TITLE OF INVENTION: Production of '1-Antitrypsin
; TITLE OF INVENTION: in Plants
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dehlinger & Associates
; STREET: P.O. Box 60850
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/023,339
; FILING DATE: 13-FEB-1998
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/037,991
; FILING DATE: 13-FEB-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Petithory, Joanne R
; REGISTRATION NUMBER: P42,995
; REFERENCE/DOCKET NUMBER: 0665-0003.30
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-324-0880
; TELEFAX: 650-324-0960
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1308 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; CLONE: codon-optimized No. 6127145I/XhoI fragment encoding RAmy3D
; CLONE: signal peptide-AAT fusion protein
US-09-023-339-6

Query Match 41.3%; Score 630.4; DB 3; Length 1308;
Best Local Similarity 70.8%; Pred. No. 1.3e-153;
Matches 838; Conservative 0; Mismatches 346; Indels 0; Gaps 0;

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Qy    335 GGAAGACCCTCAAGGCGACGCCGCTCAAAAAACCGACACCAGTCATCACGACCAAGACCA 394

Db    116 GGAGGACCCGCAGGGCGACGCCGCCCAGAAGACCGACACCAGCCACCACGACCAGGACCA 175

Qy    395 TCCGACTTTTAATAAAATTACTCCAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACA 454

Db    176 CCCGACGTTCAACAAGATCACCCCGAATTTGGCCGAATTCGCCTTCAGCCTGTACCGCCA 235

Qy    455 ATTAGCTCATCAAAGTAATTCTACTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGC 514

Db    236 GCTCGCGCACCAGTCCAACTCCACCAACATCTTCTTCAGCCCGGTGAGCATCGCCACCGC 295

Qy    515 TTTCGCCATGTTGAGTTTAGGTACTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTT 574

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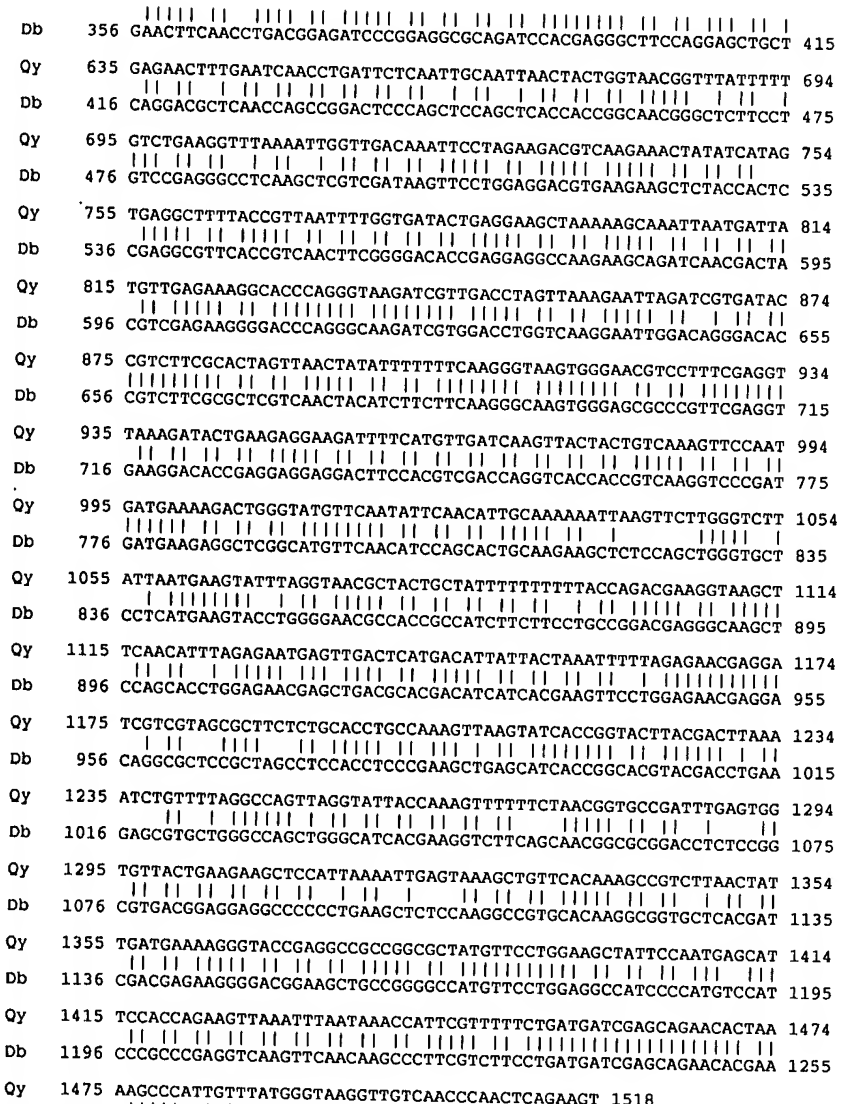

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RESULT 3
US-09-023-339-3
; Sequence 3, Application US/09023339
; Patent No. 6127145
;  GENERAL INFORMATION:
;    APPLICANT:  Sutliff, Thomas D.
;    APPLICANT:  Rodriguez, Raymond L.
;    TITLE OF INVENTION:  Production of '1-Antitrypsin
;    TITLE OF INVENTION:  in Plants
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dehlinger & Associates
;      STREET:  P.O. Box 60850
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94306
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/023,339
;      FILING DATE:  13-FEB-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/037,991
;      FILING DATE:  13-FEB-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Petithory, Joanne R
;      REGISTRATION NUMBER:  P42,995
;      REFERENCE/DOCKET NUMBER:  0665-0003.30
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-324-0880
;      TELEFAX:  650-324-0960
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  1185 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      CLONE:  codon-optimized AAT coding sequence
US-09-023-339-3

  Query Match             41.3%;  Score 629.4;  DB 3;  Length 1185;
  Best Local Similarity   70.8%;  Pred. No. 2.2e-153;
  Matches  837;  Conservative    0;  Mismatches  346;  Indels    0;  Gaps    0;

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Db    121 CTCGCGCACCAGTCCAACTCCACCAACATCTTCTTCAGCCCGGTGAGCATCGCCACCGCC 180

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Qy    576 AACTTTAATTTGACCGAAATCCCAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTG 635
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Qy   1116 CAACATTTAGAGAATGAGTTGACTCATGACATTATTACTAAATTTTTAGAGAACGAGGAT 1175

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Qy   1176 CGTCGTAGCGCTTCTCTGCACCTGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAA 1235

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Qy   1296 GTTACTGAAGAAGCTCCATTAAAATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATT 1355

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RESULT 4
US-09-023-173-5
; Sequence 5, Application US/09023173
; Patent No. 6066781
;  GENERAL INFORMATION:
;    APPLICANT:  Sutliff, Thomas D.
;    APPLICANT:  Rodriguez, Raymond L.
;    TITLE OF INVENTION:  Production of Mature Proteins
;    TITLE OF INVENTION:  in Plants
;    NUMBER OF SEQUENCES:  23
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dehlinger & Associates
;      STREET:  350 Cambridge Ave., Suite 250
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94306
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/023,173
;      FILING DATE:  13-FEB-1998
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/038,168
;      FILING DATE:  13-FEB-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Petithory, Joanne R
;      REGISTRATION NUMBER:  P42995
;      REFERENCE/DOCKET NUMBER:  0665-0007.30
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-324-0880
;      TELEFAX:  650-324-0960
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  1260 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      CLONE:  codon-optimized RAmy3D signal-mature AAT
US-09-023-173-5

  Query Match             41.3%;  Score 629.4;  DB 3;  Length 1260;
  Best Local Similarity   70.8%;  Pred. No. 2.3e-153;
  Matches  837;  Conservative    0;  Mismatches  346;  Indels    0;  Gaps    0;

Qy    336 GAAGACCCTCAAGGCGACGCCGCTCAAAAAACCGACACCAGTCATCACGACCAAGACCAT 395

Db     76 GAGGACCCGCAGGGCGACGCCGCCCAGAAGACCGACACCAGCCACCACGACCAGGACCAC 135

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Qy    576 AACTTTAATTTGACCGAAATCCCAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTG 635

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Qy    636 AGAACTTTGAATCAACCTGATTCTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTG 695

Db    376 AGGACGCTCAACCAGCCGGACTCCCAGCTCCAGCTCACCACCGGCAACGGGCTCTTCCTG 435

Qy    696 TCTGAAGGTTTAAAATTGGTTGACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGT 755

Db    436 TCCGAGGGCCTCAAGCTCGTCGATAAGTTCCTGGAGGACGTGAAGAAGCTCTACCACTCC 495

Qy    756 GAGGCTTTTACCGTTAATTTTGGTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTAT 815

Db    496 GAGGCGTTCACCGTCAACTTCGGGGACACCGAGGAGGCCAAGAAGCAGATCAACGACTAC 555

Qy    816 GTTGAGAAAGGCACCCAGGGTAAGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACC 875

Db    556 GTCGAGAAGGGGACCCAGGGCAAGATCGTGGACCTGGTCAAGGAATTGGACAGGGACACC 615

Qy    876 GTCTTCGCACTAGTTAACTATATTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTT 935

Db    616 GTCTTCGCGCTCGTCAACTACATCTTCTTCAAGGGCAAGTGGGAGCGCCCGTTCGAGGTG 675

Qy    936 AAAGATACTGAAGAGGAAGATTTTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATG 995

Db    676 AAGGACACCGAGGAGGAGGACTTCCACGTCGACCAGGTCACCACCGTCAAGGTCCCGATG 735

Qy    996 ATGAAAAGACTGGGTATGTTCAATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTA 1055

Db    736 ATGAAGAGGCTCGGCATGTTCAACATCCAGCACTGCAAGAAGCTCTCCAGCTGGGTGCTC 795
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Qy   1056 TTAATGAAGTATTTAGGTAACGCTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTT 1115
Db    796 CTCATGAAGTACCTGGGGAACGCCACCGCCATCTTCTTCCTGCCGGACGAGGGCAAGCTC 855

Qy   1116 CAACATTTAGAGAATGAGTTGACTCATGACATTATTACTAAATTTTTAGAGAACGAGGAT 1175
Db    856 CAGCACCTGGAGAACGAGCTGACGCACGACATCATCACGAAGTTCCTGGAGAACGAGGAC 915

Qy   1176 CGTCGTAGCGCTTCTCTGCACCTGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAA 1235
Db    916 AGGCGCTCCGCTAGCCTCCACCTCCCGAAGCTGAGCATCACCGGCACGTACGACCTGAAG 975

Qy   1236 TCTGTTTTAGGCCAGTTAGGTATTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGT 1295
Db    976 AGCGTGCTGGGCCAGCTGGGCATCACGAAGGTCTTCAGCAACGGCGCGGACCTCTCCGGC 1035

Qy   1296 GTTACTGAAGAAGCTCCATTAAAATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATT 1355
Db   1036 GTGACGGAGGAGGCCCCCCTGAAGCTCTCCAAGGCCGTGCACAAGGCGGTGCTCACGATC 1095

Qy   1356 GATGAAAAGGGTACCGAGGCCGCCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATT 1415
Db   1096 GACGAGAAGGGGACGGAAGCTGCCGGGGCCATGTTCCTGGAGGCCATCCCCATGTCCATC 1155

Qy   1416 CCACCAGAAGTTAAATTTAATAAACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAA 1475
Db   1156 CCGCCCGAGGTCAAGTTCAACAAGCCCTTCGTCTTCCTGATGATCGAGCAGAACACGAAG 1215

Qy   1476 AGCCCATTGTTTATGGGTAAGGTTGTCAACCCAACTCAGAAGT 1518
Db   1216 AGCCCCCTCTTCATGGGGAAGGTCGTCAACCCCACGCAGAAGT 1258
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RESULT 5
US-09-299-141-4
; Sequence 4, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
; APPLICANT: FLOTTE, TERENCE R.
; APPLICANT: SONG, SIHONG
; APPLICANT: BYRNE, BARRY J.
; APPLICANT: MORGAN, MICHAEL
; TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
; FILE REFERENCE: 4300.011800
; CURRENT APPLICATION NUMBER: US/09/299,141
; CURRENT FILING DATE: 1999-04-23
; EARLIER APPLICATION NUMBER: 60/083,025
; EARLIER FILING DATE: 1998-04-24
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 5932
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:p43C-AT
US-09-299-141-4

Query Match 28.4%; Score 433.2; DB 4; Length 5932;
Best Local Similarity 59.7%; Pred. No. 1.7e-102;
Matches 729; Conservative 0; Mismatches 493; Indels 0; Gaps 0;

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Qy    298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
Db   1347 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 1406

Qy    358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
Db   1407 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 1466

Qy    418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
Db   1467 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 1526

Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db   1527 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 1586

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db   1587 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 1646

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
Db   1647 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 1706

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db   1707 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 1766

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db   1767 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 1826

Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
Db   1827 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 1886

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
Db   1887 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 1946

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
Db   1947 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2006

Qy    958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
Db   2007 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 2066

Qy   1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
Db   2067 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 2126

Qy   1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
Db   2127 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 2186

Qy   1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
Db   2187 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 2246

Qy   1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
Db   2247 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 2306

Qy   1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
Db   2307 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 2366

Qy   1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
Db   2367 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 2426

Qy   1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
Db   2427 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 2486

Qy   1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
Db   2487 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 2546

Qy   1498 TTGTCAACCCAACTCAGAAGTA 1519
Db   2547 TGGTGAATCCCACCCAAAAATA 2568
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RESULT 6
US-09-299-141-8
; Sequence 8, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
;   LENGTH: 6142
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:PLASMID
;   OTHER INFORMATION: p43msENC-AT
US-09-299-141-8

  Query Match           28.4%;  Score 433.2;  DB 4;  Length 6142;
  Best Local Similarity 59.7%;  Pred. No. 1.7e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy     298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
           ||   ||   || |||  |   ||| |||          || || || || || || || |
Db    1557 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 1616

Qy     358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
           | || || || || ||    || || || || || || || || || || || || || |
Db    1617 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 1676

Qy     418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
           | ||  | || || || || ||     | ||  | ||  | || || ||    ||    |
Db    1677 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 1736

Qy     478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
           | || || || ||    || ||    || || || || || || ||| |     | || |
Db    1737 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 1796

Qy     538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
           | || || || || || || || || || | || ||  | || || ||  | || || || |
Db    1797 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 1856

Qy     598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
           | || || || || || || || || || || ||  |  |  | ||  | || || || ||
Db    1857 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 1916

Qy     658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
             ||  | ||  | || || || || ||  | ||  |  || ||  | ||  | || |
Db    1917 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 1976

Qy     718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
           | || ||  | || || || || ||  | || ||    || || || || || || || |
Db    1977 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 2036

Qy     778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
           | || || || || || || || || || || || ||||| || ||||| || || || || |
Db    2037 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 2096

Qy     838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
           | || || ||  | || || ||  | ||  | || || || || || || || || || |
Db    2097 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 2156

Qy     898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
           | || || || || || ||||| | || || || || || || || || || || || || |
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Db    2157 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2216

Qy     958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
           | || || || || || || || || || || || || ||||||||  |  | || ||||| |
Db    2217 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 2276

Qy    1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
           | || || || || || ||  |       |||||  |  | ||||| ||  | || || | |
Db    2277 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 2336

Qy    1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
           | || || || || || || | || || || || || || || || ||  | || ||||| | |
Db    2337 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 2396

Qy    1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
           | || || || || || || || || || | || || || || |  |    ||     | ||
Db    2397 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 2456

Qy    1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
           | || ||  |     || || || || || || || || |  ||    ||  | || ||  | || |
Db    2457 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 2516

Qy    1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
           | || || || ||     || || || || |    || || || || || || || | |
Db    2517 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 2576

Qy    1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
           |  |     || || || || || || || |  || || || || || || || || || |
Db    2577 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 2636

Qy    1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
           | || || |||||  | || || || || |||    || || || || || || || || |
Db    2637 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 2696

Qy    1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
           |||| || || ||  | ||||| || || || || || ||    ||  | || ||||| || |
Db    2697 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 2756

Qy    1498 TTGTCAACCCAACTCAGAAGTA 1519
           | || || || || || || ||
Db    2757 TGGTGAATCCCACCCAAAAATA 2778


RESULT 7
US-09-299-141-1
; Sequence 1, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 6565
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:PLASMID C-AT
US-09-299-141-1

  Query Match           28.4%;  Score 433.2;  DB 4;  Length 6565;
  Best Local Similarity 59.7%;  Pred. No. 1.7e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy     298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
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Db    906 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 965

Qy    358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
Db    966 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 1025

Qy    418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
Db   1026 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 1085

Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db   1086 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 1145

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db   1146 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 1205

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
Db   1206 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 1265

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db   1266 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 1325

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db   1326 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 1385

Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
Db   1386 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 1445

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
Db   1446 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 1505

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
Db   1506 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 1565

Qy    958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
Db   1566 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 1625

Qy   1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
Db   1626 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 1685

Qy   1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
Db   1686 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 1745

Qy   1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
Db   1746 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 1805

Qy   1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
Db   1806 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 1865

Qy   1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
Db   1866 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 1925

Qy   1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
Db   1926 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 1985

Qy   1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
Db   1986 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 2045

Qy   1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
Db   2046 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 2105

Qy   1498 TTGTCAACCCAACTCAGAAGTA 1519
Db   2106 TGGTGAATCCCACCCAAAAATA 2127
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RESULT 8
US-09-299-141-6
; Sequence 6, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
; APPLICANT: FLOTTE, TERENCE R.
; APPLICANT: SONG, SIHONG
; APPLICANT: BYRNE, BARRY J.
; APPLICANT: MORGAN, MICHAEL
; TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
; FILE REFERENCE: 4300.011800
; CURRENT APPLICATION NUMBER: US/09/299,141
; CURRENT FILING DATE: 1999-04-23
; EARLIER APPLICATION NUMBER: 60/083,025
; EARLIER FILING DATE: 1998-04-24
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 6714
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:PLASMID
; OTHER INFORMATION: p43CB-AT
US-09-299-141-6

Query Match 28.4%; Score 433.2; DB 4; Length 6714;
Best Local Similarity 59.7%; Pred. No. 1.7e-102;
Matches 729; Conservative 0; Mismatches 493; Indels 0; Gaps 0;

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Qy    298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
Db   2129 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 2188

Qy    358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
Db   2189 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 2248

Qy    418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
Db   2249 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 2308

Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db   2309 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 2368

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db   2369 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 2428

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
Db   2429 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 2488

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db   2489 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 2548

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db   2549 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 2608
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Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
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Db   2609 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 2668

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
          | || || ||  | || || ||  | ||  | || || || || || || || || || | |
Db   2669 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 2728

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
          | || || || || || ||||| | || || || || || || || || || || || || | |
Db   2729 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2788

Qy    958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
          | || || || || || || || || || || || || ||||||||  |  | || ||||| |
Db   2789 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 2848

Qy   1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
          | || || || || || ||  |       |||||  |  | ||||| ||  | || || | |
Db   2849 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 2908

Qy   1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
          | || || || || || ||  | || || || || || || || || ||  | || |||||  | |
Db   2909 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 2968

Qy   1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
          | || || || || || || || ||  | || || || || ||  |  |     ||     | ||
Db   2969 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 3028

Qy   1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
          | || ||  |    || || || || || ||  | ||    ||  | || ||  | || | |
Db   3029 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 3088

Qy   1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
          | || || || ||    || || || ||  |    || || || || || || || ||  | |
Db   3089 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 3148

Qy   1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
          |  |    || || || || || || || ||  | || || || || || || || || || | |
Db   3149 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 3208

Qy   1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
          | || || |||||  | || || || || |||   || || || || || || || || | |
Db   3209 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 3268

Qy   1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
          |||| || || ||  | ||||| || || || || ||    ||  | || ||||| || | |
Db   3269 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 3328

Qy   1498 TTGTCAACCCAACTCAGAAGTA 1519
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Db   3329 TGGTGAATCCCACCCAAAAATA 3350
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RESULT 9
US-09-299-141-9
; Sequence 9, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
; APPLICANT: FLOTTE, TERENCE R.
; APPLICANT: SONG, SIHONG
; APPLICANT: BYRNE, BARRY J.
; APPLICANT: MORGAN, MICHAEL
; TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
; FILE REFERENCE: 4300.011800
; CURRENT APPLICATION NUMBER: US/09/299,141
; CURRENT FILING DATE: 1999-04-23
; EARLIER APPLICATION NUMBER: 60/083,025
; EARLIER FILING DATE: 1998-04-24
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
; LENGTH: 6924
; TYPE: DNA

; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:PLASMID
; OTHER INFORMATION: p43rmsENC-AT
US-09-299-141-9

Query Match 28.4%; Score 433.2; DB 4; Length 6924;
Best Local Similarity 59.7%; Pred. No. 1.8e-102;
Matches 729; Conservative 0; Mismatches 493; Indels 0; Gaps 0;

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Qy    298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
          ||   ||   || |||  |   ||| |||             || || || || || || | |
Db   2339 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 2398

Qy    358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
          | || || || || ||    || || || || || || || || || || || || || | |
Db   2399 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 2458

Qy    418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
          | ||  | || || || || ||      | ||  | ||  | || || ||     ||    |
Db   2459 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 2518

Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
          | || || || ||    || ||    || || || || || || || |||  |     | || |
Db   2519 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 2578

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
          | || || || || || || || || ||  | || ||  | || || ||  | || || || | |
Db   2579 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 2638

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
          | || || || || || || || || || || ||  |  | || |  | || || || || ||
Db   2639 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 2698

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
          ||  | ||  | || || || || ||  | ||  |    || ||  | ||  | || | |
Db   2699 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 2758

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
          | || ||  | || || || || ||  | || ||    || || || || || || || | |
Db   2759 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 2818

Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
          | || || || || || || || || || || || ||||| || || || || || || | |
Db   2819 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 2878

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
          | || || ||  | || || ||  | ||  | || || || || || || || || || | |
Db   2879 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 2938

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
          | || || || || || ||||||  | || || || || || || || || || || || | |
Db   2939 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2998

Qy    958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
          | || || || || || || || || || || || || ||||||||  |  | || ||||| |
Db   2999 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 3058

Qy   1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
          | || || || || || || ||  |       |||||  |  | ||||| ||  | || || | |
Db   3059 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 3118

Qy   1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
          | || || || || || ||  | || || || || || || || || ||  | || |||||  | |
Db   3119 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 3178

Qy   1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
          | || || || || || ||  | || || || || ||  |  |     ||     | ||
Db   3179 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 3238

Qy   1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
          | || ||  |    || || || || || ||  | ||    ||  | || ||  | || | |
Db   3239 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 3298
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Qy    1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
Db    3299 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 3358

Qy    1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
Db    3359 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 3418

Qy    1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
Db    3419 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 3478

Qy    1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
Db    3479 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 3538

Qy    1498 TTGTCAACCCAACTCAGAAGTA 1519
Db    3539 TGGTGAATCCCACCCAAAAATA 3560


RESULT 10
US-09-299-141-10
; Sequence 10, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
;  LENGTH: 6924
;  TYPE: DNA
;  ORGANISM: Artificial Sequence
;  FEATURE:
;  OTHER INFORMATION: Description of Artificial Sequence:PLASMID
;  OTHER INFORMATION: p43msENCB-AT
US-09-299-141-10

  Query Match           28.4%;  Score 433.2;  DB 4;  Length 6924;
  Best Local Similarity  59.7%;  Pred. No. 1.8e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy     298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
Db    2339 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 2398

Qy     358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
Db    2399 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 2458

Qy     418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
Db    2459 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 2518

Qy     478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db    2519 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 2578

Qy     538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db    2579 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 2638

Qy     598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
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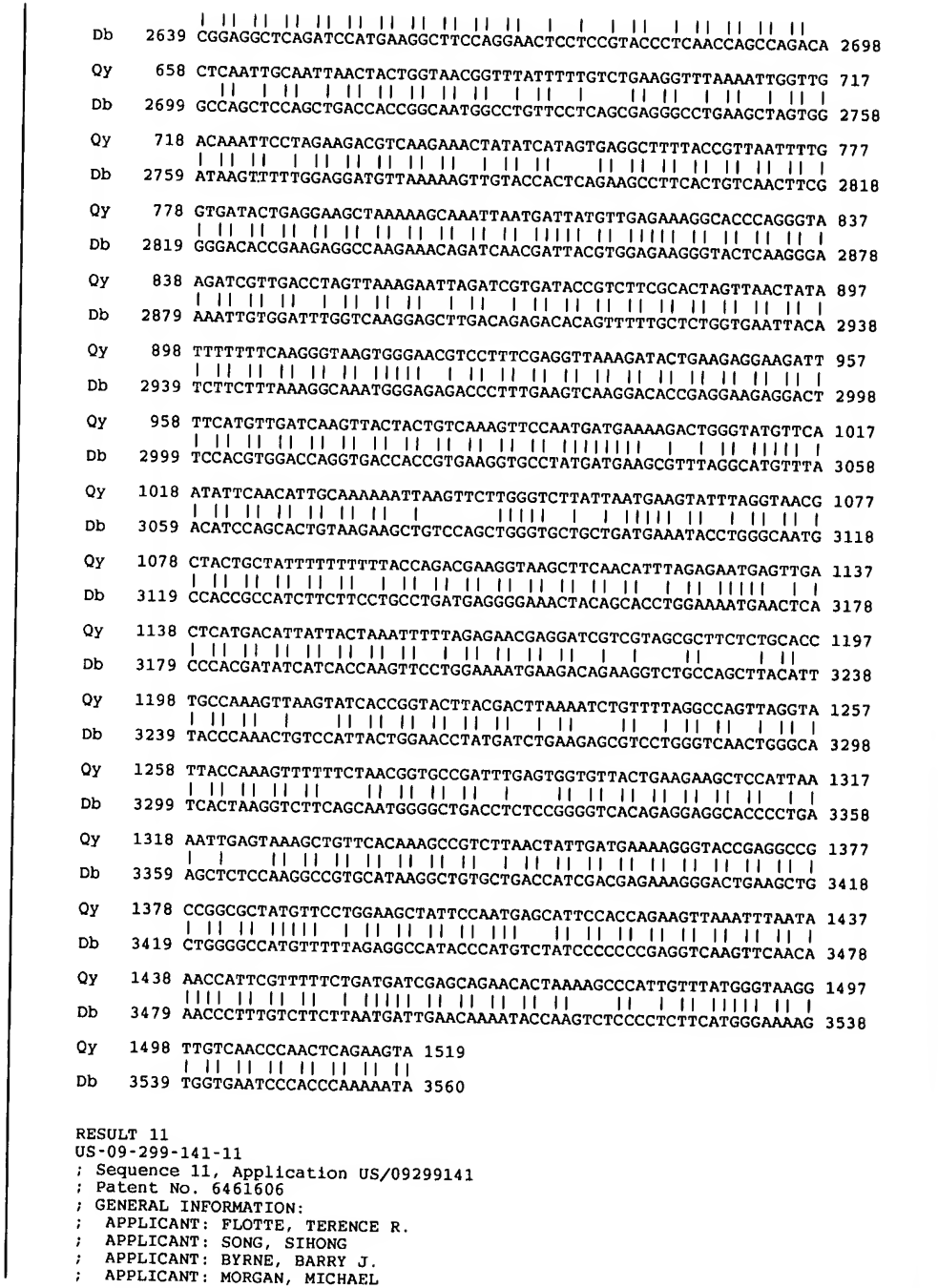

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Db    2639 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 2698

Qy     658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db    2699 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 2758

Qy     718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db    2759 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 2818

Qy     778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
Db    2819 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 2878

Qy     838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
Db    2879 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 2938

Qy     898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
Db    2939 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2998

Qy     958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
Db    2999 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 3058

Qy    1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
Db    3059 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 3118

Qy    1078 CTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
Db    3119 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 3178

Qy    1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
Db    3179 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 3238

Qy    1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
Db    3239 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 3298

Qy    1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
Db    3299 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 3358

Qy    1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
Db    3359 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 3418

Qy    1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
Db    3419 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 3478

Qy    1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
Db    3479 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 3538

Qy    1498 TTGTCAACCCAACTCAGAAGTA 1519
Db    3539 TGGTGAATCCCACCCAAAAATA 3560


RESULT 11
US-09-299-141-11
; Sequence 11, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
```

```
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
;   LENGTH: 6924
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:PLASMID
;   OTHER INFORMATION: p43rmsENCB-AT
US-09-299-141-11

  Query Match           28.4%;  Score 433.2;  DB 4;  Length 6924;
  Best Local Similarity  59.7%;  Pred. No. 1.8e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy     298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
           ||   ||   || |||  |   ||| |||         || || || || || || || |
Db    2339 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 2398

Qy     358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
           | || || || ||    || || || || || || || || || || || || || || |
Db    2399 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 2458

Qy     418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
           | ||  | || || || || ||     | ||  | ||  | || || ||    ||    |
Db    2459 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 2518

Qy     478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
           | || || || ||    || ||   || || || || || || ||| |     | || |
Db    2519 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 2578

Qy     538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
           | || || || || || || || ||  | || ||  | || || ||  | || || || |
Db    2579 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 2638

Qy     598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
           | || || || || || || || || || || ||  |  |  | ||  | || || || ||
Db    2639 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 2698

Qy     658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
           ||  | ||  | || || || || ||  | ||  |    || ||  | ||  | || |
Db    2699 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 2758

Qy     718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
           | || ||  | || || || || ||  | || ||    || || || || || || || |
Db    2759 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 2818

Qy     778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
           | || || || || || || || || || || ||||| || ||||| || || || || |
Db    2819 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 2878

Qy     838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
           | || || ||  | || || ||  | ||  | || || || || || || || || || |
Db    2879 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 2938

Qy     898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
           | || || || || || ||||| | || || || || || || || || || || || || |
Db    2939 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2998

Qy     958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
           | || || || || || || || || || || ||||||| |  | || ||||| |
Db    2999 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 3058

Qy    1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
           | || || || || || ||  |      ||||  |  | ||||| ||  | || || |
Db    3059 ACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGGCAATG 3118

Qy    1078 CTACTGCTATTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
           | || || || || ||  | || || || || || || ||  | || ||||| | |
Db    3119 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 3178

Qy    1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
           | || || || || || || ||  | || || || ||  |  |    ||    | ||
Db    3179 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 3238

Qy    1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
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Db    3239 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 3298

Qy    1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
           | || || || ||    || || || ||  |    || || || || || || || |  | |
Db    3299 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 3358

Qy    1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
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Db    3359 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 3418

Qy    1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
           | || || |||||  | || || || || |||   || || || || || || || || | |
Db    3419 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 3478

Qy    1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
           ||||  || || ||  | ||||| || || || || ||    ||  | || ||||| || |
Db    3479 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 3538

Qy    1498 TTGTCAACCCAACTCAGAAGTA 1519
           | || || || || || || ||
Db    3539 TGGTGAATCCCACCCAAAAATA 3560


RESULT 12
US-09-299-141-7
; Sequence 7, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 7
;   LENGTH: 6981
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:PLASMID C-AT2
US-09-299-141-7

  Query Match           28.4%;  Score 433.2;  DB 4;  Length 6981;
  Best Local Similarity  59.7%;  Pred. No. 1.8e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy     298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
           ||   ||   || |||  |   ||| |||         || || || || || || || |
Db     127 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 186

Qy     358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
           | || || || || ||    || || || || || || || || || || || || || |
Db     187 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 246

Qy     418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
           | ||  | || || || || ||     | ||  | ||  | || || ||    ||    |
Db     247 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 306
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Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db    307 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 366

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db    367 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 426

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
Db    427 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 486

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db    487 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 546

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db    547 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 606

Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
Db    607 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 666

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
Db    667 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 726

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
Db    727 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 786

Qy    958 TTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATGATGAAAAGACTGGGTATGTTCA 1017
Db    787 TCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTA 846

Qy   1018 ATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTATTAATGAAGTATTTAGGTAACG 1077
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Qy   1078 CTACTGCTATTTTTTTTTTTACCAGACGAAGGTAAGCTTCAACATTTAGAGAATGAGTTGA 1137
Db    907 CCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTACAGCACCTGGAAAATGAACTCA 966

Qy   1138 CTCATGACATTATTACTAAATTTTTAGAGAACGAGGATCGTCGTAGCGCTTCTCTGCACC 1197
Db    967 CCCACGATATCATCACCAAGTTCCTGGAAAATGAAGACAGAAGGTCTGCCAGCTTACATT 1026

Qy   1198 TGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAATCTGTTTTAGGCCAGTTAGGTA 1257
Db   1027 TACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCCTGGGTCAACTGGGCA 1086

Qy   1258 TTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGTGTTACTGAAGAAGCTCCATTAA 1317
Db   1087 TCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGGGTCACAGAGGAGGCACCCCTGA 1146

Qy   1318 AATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATTGATGAAAAGGGTACCGAGGCCG 1377
Db   1147 AGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTG 1206

Qy   1378 CCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATTCCACCAGAAGTTAAATTTAATA 1437
Db   1207 CTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATCCCCCCCGAGGTCAAGTTCAACA 1266

Qy   1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
Db   1267 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 1326

Qy   1498 TTGTCAACCCAACTCAGAAGTA 1519
Db   1327 TGGTGAATCCCACCCAAAAATA 1348
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RESULT 13
US-09-299-141-3
; Sequence 3, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
;  APPLICANT: FLOTTE, TERENCE R.
;  APPLICANT: SONG, SIHONG
;  APPLICANT: BYRNE, BARRY J.
;  APPLICANT: MORGAN, MICHAEL
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
;  FILE REFERENCE: 4300.011800
;  CURRENT APPLICATION NUMBER: US/09/299,141
;  CURRENT FILING DATE: 1999-04-23
;  EARLIER APPLICATION NUMBER: 60/083,025
;  EARLIER FILING DATE: 1998-04-24
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 7054
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:PLASMID dE-AT
US-09-299-141-3

  Query Match             28.4%;  Score 433.2;  DB 4;  Length 7054;
  Best Local Similarity   59.7%;  Pred. No. 1.8e-102;
  Matches  729;  Conservative    0;  Mismatches  493;  Indels    0;  Gaps    0;

Qy    298 TGTGTGGTAAGTCCTGTGTTTCCCCAGTCAAGGCCATGGAAGACCCTCAAGGCGACGCCG 357
Db   1395 TGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTG 1454

Qy    358 CTCAAAAAACCGACACCAGTCATCACGACCAAGACCATCCGACTTTTAATAAAATTACTC 417
Db   1455 CCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTTCAACAAGATCACCC 1514

Qy    418 CAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAATTAGCTCATCAAAGTAATTCTA 477
Db   1515 CCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAACAGCA 1574

Qy    478 CTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCTTTCGCCATGTTGAGTTTAGGTA 537
Db   1575 CCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGA 1634

Qy    538 CTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTAAACTTTAATTTGACCGAAATCC 597
Db   1635 CCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTC 1694

Qy    598 CAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTGAGAACTTTGAATCAACCTGATT 657
Db   1695 CGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACA 1754

Qy    658 CTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTGTCTGAAGGTTTAAAATTGGTTG 717
Db   1755 GCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTCAGCGAGGGCCTGAAGCTAGTGG 1814

Qy    718 ACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGTGAGGCTTTTACCGTTAATTTTG 777
Db   1815 ATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCAGAAGCCTTCACTGTCAACTTCG 1874

Qy    778 GTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTATGTTGAGAAAGGCACCCAGGGTA 837
Db   1875 GGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAAGGGTACTCAAGGGA 1934

Qy    838 AGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACCGTCTTCGCACTAGTTAACTATA 897
Db   1935 AAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTTGCTCTGGTGAATTACA 1994

Qy    898 TTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTTAAAGATACTGAAGAGGAAGATT 957
Db   1995 TCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTCAAGGACACCGAGGAAGAGGACT 2054
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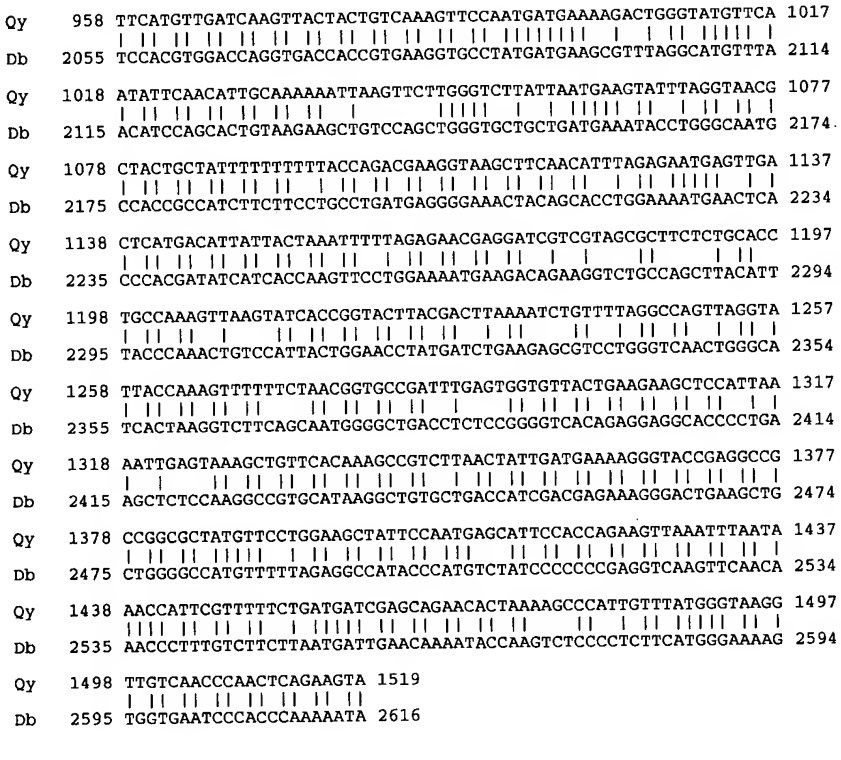
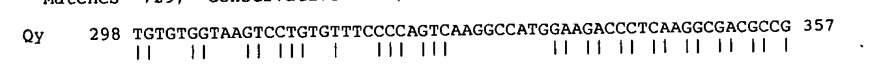
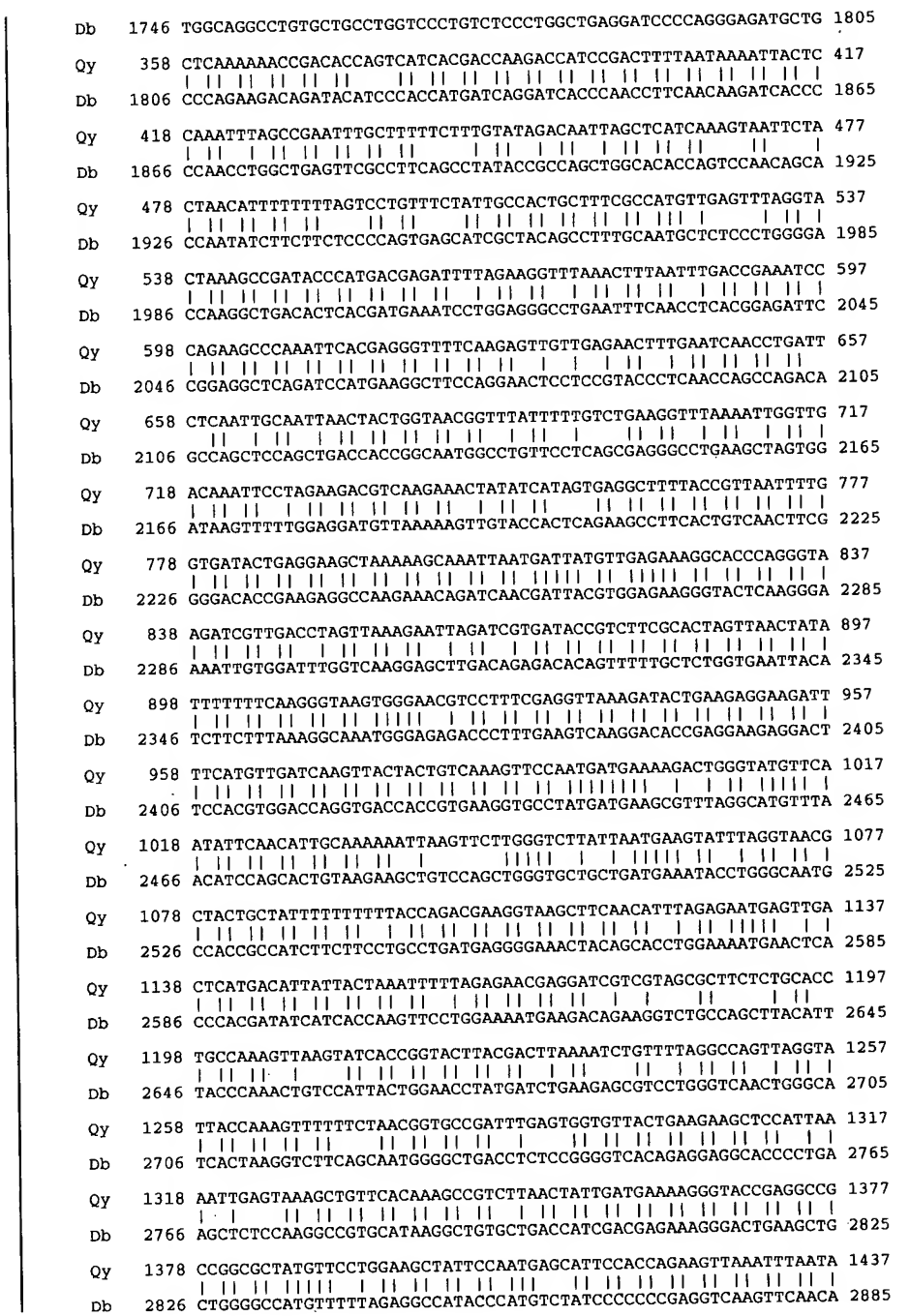


RESULT 14
US-09-299-141-2
; Sequence 2, Application US/09299141
; Patent No. 6461606
; GENERAL INFORMATION:
; APPLICANT: FLOTTE, TERENCE R.
; APPLICANT: SONG, SIHONG
; APPLICANT: BYRNE, BARRY J.
; APPLICANT: MORGAN, MICHAEL
; TITLE OF INVENTION: MATERIALS AND METHODS FOR GENE THERAPY
; FILE REFERENCE: 4300.011800
; CURRENT APPLICATION NUMBER: US/09/299,141
; CURRENT FILING DATE: 1999-04-23
; EARLIER APPLICATION NUMBER: 60/083,025
; EARLIER FILING DATE: 1998-04-24
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 7405
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:PLASMID E-AT
US-09-299-141-2

Query Match 28.4%; Score 433.2; DB 4; Length 7405;
Best Local Similarity 59.7%; Pred. No. 1.8e-102;
Matches 729; Conservative 0; Mismatches 493; Indels 0; Gaps 0;





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Qy   1438 AACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAAAGCCCATTGTTTATGGGTAAGG 1497
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Db   2886 AACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAGTCTCCCCTCTTCATGGGAAAAG 2945

Qy   1498 TTGTCAACCCAACTCAGAAGTA 1519
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Db   2946 TGGTGAATCCCACCCAAAAATA 2967


RESULT 15
US-09-023-339-2
; Sequence 2, Application US/09023339
; Patent No. 6127145
;  GENERAL INFORMATION:
;    APPLICANT:  Sutliff, Thomas D.
;    APPLICANT:  Rodriguez, Raymond L.
;    TITLE OF INVENTION:  Production of '1-Antitrypsin
;    TITLE OF INVENTION:  in Plants
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dehlinger & Associates
;      STREET:  P.O. Box 60850
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94306
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/023,339
;      FILING DATE:  13-FEB-1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/037,991
;      FILING DATE:  13-FEB-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Petithory, Joanne R
;      REGISTRATION NUMBER:  P42,995
;      REFERENCE/DOCKET NUMBER:  0665-0003.30
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-324-0880
;      TELEFAX:  650-324-0960
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  1185 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      CLONE:  native AAT coding sequence
US-09-023-339-2

  Query Match             28.2%;  Score 430.4;  DB 3;  Length 1185;
  Best Local Similarity   60.2%;  Pred. No. 5.3e-102;
  Matches  713;  Conservative    0;  Mismatches  471;  Indels    0;  Gaps    0;

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Db      1 GAGGATCCCCAGGGAGATGCTGCCCAGAAGACAGATACATCCCACCATGATCAGGATCAC 60

Qy    396 CCGACTTTTAATAAAATTACTCCAAATTTAGCCGAATTTGCTTTTTCTTTGTATAGACAA 455
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Db     61 CCAACCTTCAACAAGATCACCCCCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAG 120

Qy    456 TTAGCTCATCAAAGTAATTCTACTAACATTTTTTTTAGTCCTGTTTCTATTGCCACTGCT 515
          | || || ||    ||    || || || || ||    || ||    || || || ||
Db    121 CTGGCACACCAGTCCAACAGCACCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCC 180

Qy    516 TTCGCCATGTTGAGTTTAGGTACTAAAGCCGATACCCATGACGAGATTTTAGAAGGTTTA 575
          || || ||| |     | || || || || || || || || || ||  | || ||  |

Db    181 TTTGCAATGCTCTCCCTGGGGACCAAGGCTGACACTCACGATGAAATCCTGGAGGGCCTG 240

Qy    576 AACTTTAATTTGACCGAAATCCCAGAAGCCCAAATTCACGAGGGTTTTCAAGAGTTGTTG 635
          || || ||  | || || || || || || || || || || || || || || || |  | |
Db    241 AATTTCAACCTCACGGAGATTCCGGAGGCTCAGATCCATGAAGGCTTCCAGGAACTCCTC 300

Qy    636 AGAACTTTGAATCAACCTGATTCTCAATTGCAATTAACTACTGGTAACGGTTTATTTTTG 695
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Db    301 CGTACCCTCAACCAGCCAGACAGCCAGCTCCAGCTGACCACCGGCAATGGCCTGTTCCTC 360

Qy    696 TCTGAAGGTTTAAAATTGGTTGACAAATTCCTAGAAGACGTCAAGAAACTATATCATAGT 755
          || ||  | ||  | || || || ||  | || || || || || ||  | || ||
Db    361 AGCGAGGGCCTGAAGCTAGTGGATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCACTCA 420

Qy    756 GAGGCTTTTACCGTTAATTTTGGTGATACTGAGGAAGCTAAAAAGCAAATTAATGATTAT 815
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Db    421 GAAGCCTTCACTGTCAACTTCGGGGACACCGAAGAGGCCAAGAAACAGATCAACGATTAC 480

Qy    816 GTTGAGAAAGGCACCCAGGGTAAGATCGTTGACCTAGTTAAAGAATTAGATCGTGATACC 875
          || ||||| || || || || || || || || || || || || || || || || || ||
Db    481 GTGGAGAAGGGTACTCAAGGGAAAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACA 540

Qy    876 GTCTTCGCACTAGTTAACTATATTTTTTTCAAGGGTAAGTGGGAACGTCCTTTCGAGGTT 935
          || || || || || || || || || || || || || ||||| | || || || || ||
Db    541 GTTTTTGCTCTGGTGAATTACATCTTCTTTAAAGGCAAATGGGAGAGACCCTTTGAAGTC 600

Qy    936 AAAGATACTGAAGAGGAAGATTTTCATGTTGATCAAGTTACTACTGTCAAAGTTCCAATG 995
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Db    601 AAGGACACCGAGGAAGAGGACTTCCACGTGGACCAGGTGACCACCGTGAAGGTGCCTATG 660

Qy    996 ATGAAAAGACTGGGTATGTTCAATATTCAACATTGCAAAAAATTAAGTTCTTGGGTCTTA 1055
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Db    661 ATGAAGCGTTTAGGCATGTTTAACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGTGCTG 720

Qy   1056 TTAATGAAGTATTTAGGTAACGCTACTGCTATTTTTTTTTTACCAGACGAAGGTAAGCTT 1115
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Db    721 CTGATGAAATACCTGGGCAATGCCACCGCCATCTTCTTCCTGCCTGATGAGGGGAAACTA 780

Qy   1116 CAACATTTAGAGAATGAGTTGACTCATGACATTATTACTAAATTTTTAGAGAACGAGGAT 1175
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Db    781 CAGCACCTGGAAAATGAACTCACCCACGATATCATCACCAAGTTCCTGGAAAATGAAGAC 840

Qy   1176 CGTCGTAGCGCTTCTCTGCACCTGCCAAAGTTAAGTATCACCGGTACTTACGACTTAAAA 1235
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Db    841 AGAAGGTCTGCCAGCTTACATTTACCCAAACTGTCCATTACTGGAACCTATGATCTGAAG 900

Qy   1236 TCTGTTTTAGGCCAGTTAGGTATTACCAAAGTTTTTTCTAACGGTGCCGATTTGAGTGGT 1295
          ||  | || ||  | || || || || || ||    || || || || |    ||
Db    901 AGCGTCCTGGGTCAACTGGGCATCACTAAGGTCTTCAGCAATGGGGCTGACCTCTCCGGG 960

Qy   1296 GTTACTGAAGAAGCTCCATTAAAATTGAGTAAAGCTGTTCACAAAGCCGTCTTAACTATT 1355
          || || || || || ||  | ||  |     || || || || || || ||  | || ||
Db    961 GTCACAGAGGAGGCACCCCTGAAGCTCTCCAAGGCCGTGCATAAGGCTGTGCTGACCATC 1020

Qy   1356 GATGAAAAGGGTACCGAGGCCGCCGGCGCTATGTTCCTGGAAGCTATTCCAATGAGCATT 1415
          || || || || || || || || || || || || || |||||  | || || || || ||
Db    1021 GACGAGAAAGGGACTGAAGCTGCTGGGGCCATGTTTTTAGAGGCCATACCCATGTCTATC 1080

Qy   1416 CCACCAGAAGTTAAATTTAATAAACCATTCGTTTTTCTGATGATCGAGCAGAACACTAAA 1475
          || || || || || || || ||||| || || ||  | ||||| || || || || ||
Db    1081 CCCCCCGAGGTCAAGTTCAACAAACCCTTTGTCTTCTTAATGATTGAACAAAATACCAAG 1140

Qy   1476 AGCCCATTGTTTATGGGTAAGGTTGTCAACCCAACTCAGAAGTA 1519
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Db    1141 TCTCCCCTCTTCATGGGAAAAGTGGTGAATCCCACCCAAAAATA 1184


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Job time : 86 secs
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